

AMENDMENTS**In the claims:**

11. (Currently Amended) A composition comprising a purified recombinant trimer of HIV gp160, wherein the trimer:
- a) binds to CD4;
 - b) binds to an anti-gp120 antibody capable of neutralizing HIV infection of cells *in vitro*;
 - c) binds to an anti-gp41 antibody; and
 - d) has no inter-chain disulfide bridges.
12. (Previously Added) The composition according to claim 11, wherein the gp160 comprises a gp41 and a gp120 from different HIV strains.
13. (Previously Amended) A composition comprising a ^{purified recombinant} trimer of HIV gp160 wherein all or a portion of the gp160 transmembrane region is deleted, and were the trimer:
- a) binds to CD4;
 - b) binds to an anti-gp120 antibody capable of neutralizing HIV infection of cells *in vitro*;
 - c) binds to an anti-gp41 antibody; and
 - d) has no inter-chain disulfide bridges.
14. (Previously Added) The composition according to any one of claims 11 - 13 having a protein content that comprises more than 50% of the trimer.
15. (Previously Added) The composition according to any one of claims 11 - 13 wherein the binding affinity of the trimer to CD4 is equal or greater than the binding affinity of gp120 of an infectious HIV.
16. (Previously Amended) The composition of any one of claims 11 - 13 further comprising an adjuvant.
17. (Previously Amended) The composition according to claim 16 wherein the trimer is the only HIV surface antigen in the composition.

18. (Previously Amended) A method of producing the trimer according to any one of claims 11 - 12, the method comprising, in order:
- expressing gp160;
 - purifying the gp160;
 - contacting the gp160 with a reducing agent;
 - contacting the gp160 with an alkylating agent;
 - contacting the gp160 with an oxidizing agent;
 - contacting the gp160 with an ionic detergent, and
 - dialyzing the gp160 against a neutral detergent.
19. (Previously Amended) A method of producing the trimer according to any one of claims 11- 12, the method comprising, in order:
- expressing gp160;
 - purifying the gp160;
 - contacting the gp160 with an ionic detergent;
 - contacting the gp160 with a reducing agent;
 - contacting the gp160 with an oxidizing agent; and
 - dialyzing the gp160 against a neutral detergent.
20. (Previously Added) A method of producing the trimer according to claim 13, the method comprising, in order:
- expressing gp160 having its transmembrane region deleted therefrom;
 - purifying the gp160;
 - contacting the gp160 with a reducing agent;
 - contacting the gp160 with an alkylating agent;
 - contacting the gp160 with an oxidizing agent;
 - contacting the gp160 with an ionic detergent, and
 - dialyzing the gp160 against a neutral detergent.
21. (Previously Added) A method of producing the trimer according to any one of claims 13, the method comprising, in order:
- expressing gp160 having its transmembrane region deleted therefrom;

- b) purifying the gp160;
- c) contacting the gp160 with an ionic detergent;
- d) contacting the gp160 with a reducing agent;
- e) contacting the gp160 with an oxidizing agent; and
- f) dialyzing the gp160 against a neutral detergent.

22. (Previously Added) A composition comprising a purified trimer of HIV gp160 comprising a gp41 fragment essential for trimer formation and an immunogenic fragment of gp120, wherein the trimer:

- a) binds to CD4;
- b) binds to an anti-gp120 antibody capable of neutralizing HIV infection of cells *in vitro*;
- c) binds to an anti-gp41 antibody; and
- d) has no inter-chain disulfide bridges.

23. (Previously Added) The composition according to claim 22, wherein the gp41 and gp120 are from different HIV strains.

24. (Previously Added) The composition according to any one of claims 22 - 23 having a protein content that comprises more than 50% of the trimer.

25. (Previously Added) The composition according to any one of claims 22 - 23 wherein the binding affinity of the trimer to CD4 is equal or greater than the binding affinity of gp120 of an infectious HIV.


26. (Previously Added) The composition of any one of claims 22 - 23 further comprising an adjuvant.

27. (Previously Added) The composition according to claim 26 wherein the trimer is the only HIV surface antigen in the composition.

28. (Previously Added) A method of producing the trimer according to any one of claims 22 - 23, the method comprising, in order:

- a) expressing a gp160 fragment comprising gp41 and an immunogenic gp120 fragment;
- b) purifying the gp160 fragment;
- c) contacting the gp160 fragment with a reducing agent;
- d) contacting the gp160 fragment with an alkylating agent;
- e) contacting the gp160 fragment with an oxidizing agent;
- f) contacting the gp160 fragment with an ionic detergent, and
- g) dialyzing the gp160 fragment against a neutral detergent.

29. (Previously Added) A method of producing the trimer according to any one of claims 22- 23, the method comprising, in order:

- 
- a) expressing a gp160 fragment comprising gp41 and an immunogenic gp120 fragment;
 - b) purifying the gp160 fragment;
 - c) contacting the gp160 fragment with an ionic detergent;
 - d) contacting the gp160 fragment with a reducing agent;
 - e) contacting the gp160 fragment with an oxidizing agent; and
 - f) dialyzing the gp160 fragment against a neutral detergent.

30. (Previously Added) The composition according to claim 22 wherein the gp41 fragment essential for trimer formation comprises gp41 lacking its transmembrane domain.

31. (Previously Added) The composition according to claim 30 wherein the gp41 fragment comprises the 129 N-terminal amino acids of gp41.